

FIG. 1

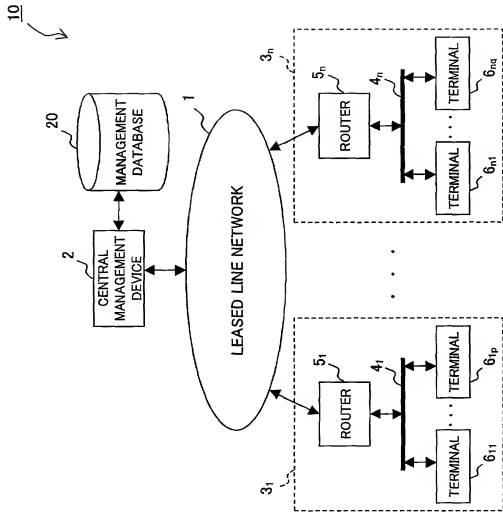


FIG. 2

SECRET CONCEALMENT TERMINAL TABLE

ROUTERS	SUBSCRIBER TERMINALS	PARTNER TERMINALS
ROUTER 5 <sub>1</sub>	TERMINAL 6 <sub>11</sub>	TERMINAL 6 <sub>21</sub>
	TERMINAL 6 <sub>11</sub>	TERMINAL 6 <sub>25</sub>
	.	.
	.	.
	TERMINAL 6 <sub>12</sub>	TERMINAL 6 <sub>32</sub>
	TERMINAL 6 <sub>12</sub>	TERMINAL 6 <sub>44</sub>
	.	.
	.	.
ROUTER 5 <sub>2</sub>	TERMINAL 6 <sub>1p</sub>	TERMINAL 6 <sub>22</sub>
	.	.
	.	.
	.	.
ROUTER 5 <sub>2</sub>	.	.
	.	.
	.	.
ROUTER 5 <sub>n</sub>	.	.
	.	.
	.	.

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FIG. 3A

PUBLIC KEY/SECRET KEY TABLE

ROUTERS	PUBLIC KEYS	SECRET KEYS
CENTRAL MANAGEMENT DEVICE	K <sub>pc</sub>	K <sub>sc</sub>
ROUTER 5 <sub>1</sub>	K <sub>p1</sub>	K <sub>s1</sub>
ROUTER 5 <sub>2</sub>	K <sub>p2</sub>	K <sub>s2</sub>
.	.	.
.	.	.
ROUTER 5 <sub>n</sub>	K <sub>pn</sub>	K <sub>sn</sub>

FIG. 3B

PUBLIC KEY/SECRET KEY TABLE

ROUTERS	PARTNER ROUTER	PUBLIC KEYS	SECRET KEYS
CENTRAL MANAGEMENT DEVICE	ROUTER 5 <sub>1</sub>	K <sub>pc1</sub>	K <sub>sc1</sub>
	ROUTER 5 <sub>2</sub>	K <sub>pc2</sub>	K <sub>sc2</sub>
	.	.	.
	.	.	.
	ROUTER 5 <sub>n</sub>	K <sub>pcn</sub>	K <sub>scn</sub>
ROUTER 5 <sub>1</sub>	CENTRAL MANAGEMENT DEVICE	K <sub>p1c</sub>	K <sub>s1c</sub>
	ROUTER 5 <sub>2</sub>	K <sub>p12</sub>	K <sub>s12</sub>
	.	.	.
	.	.	.
	ROUTER 5 <sub>n</sub>	K <sub>p1n</sub>	K <sub>s1n</sub>
.	.	.	.
.	.	.	.
.	.	.	.

FIG. 4A

COMMON KEY TABLE

COMMON KEYS
Kc1
Kc2
.
.

FIG. 4B

COMMON KEY TABLE

COMMON KEYS	ENCRYPTION METHOD
Kc1	M1
Kc2	M2
.	.
.	.
.	.

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**FIG. 5A** SECRET CONCEALMENT TERMINAL TABLE

SUBSCRIBER TERMINALS	PARTNER TERMINALS
TERMINAL 6 <sub>11</sub>	TERMINAL 6 <sub>21</sub>
TERMINAL 6 <sub>11</sub>	TERMINAL 6 <sub>25</sub>
•	•
•	•
TERMINAL 6 <sub>12</sub>	TERMINAL 6 <sub>32</sub>
TERMINAL 6 <sub>12</sub>	TERMINAL 6 <sub>44</sub>
•	•
•	•
TERMINAL 6 <sub>1p</sub>	TERMINAL 6 <sub>22</sub>
•	•
•	•

**FIG. 5B** PUBLIC KEY/SECRET KEY TABLE

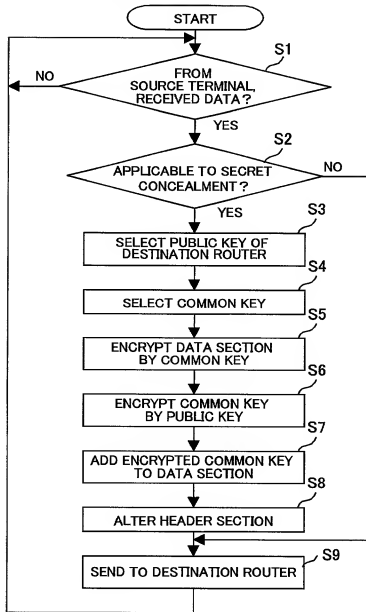
ROUTERS	PUBLIC KEYS	SECRET KEYS
ROUTER 5 <sub>1</sub>	K <sub>p1</sub>	K <sub>s1</sub>
ROUTER 5 <sub>2</sub>	K <sub>p2</sub>	
•	•	•
•	•	•
•	•	•
ROUTER 5 <sub>n</sub>	K <sub>pn</sub>	
CENTRAL MANAGEMENT DEVICE	K <sub>pc</sub>	

**FIG. 5C** COMMON KEY TABLE

COMMON KEYS
K <sub>c1</sub>
K <sub>c2</sub>
•
•

FIG. 6

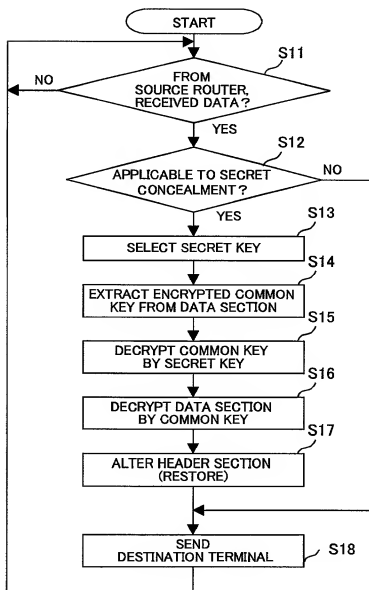
PROCESSING OF SOURCE ROUTER



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FIG. 7

PROCESSING OF DESTINATION ROUTER



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FIG. 8

UPDATING PROCESSING OF TABLE  
(CENTRAL MANAGEMENT DEVICE)

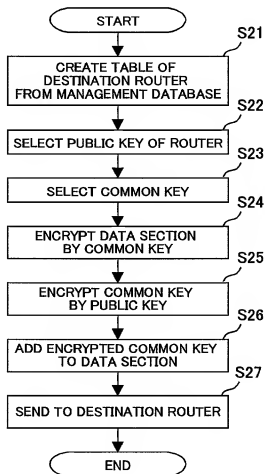




FIG. 9

UPDATING PROCESSING OF TABLE  
(ROUTER SIDE)

